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THE ROLE OF MANAGEMENT ACCOUNTING IN A START-UP

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Abstract

The aim of the study is to explore, discuss and conclude on the role of management accounting in a start-up company setting. This study is conducted via analyzing prior scientific literature findings on the characteristics of a start-up and different kinds of management accounting methods divided into two groups: management accounting methods actually used by start-ups and generally popular management accounting methods. The management accounting methods are examined by using analytical framework. The analytical framework is a standardizing tool for the management accounting methods and makes the comparative analysis possible.

This study applies a simplified systematic literature review method to summarize the previous scientific literature findings. The method's results are provided in a table in the end of every chapter the method is used. After the previous literature findings on the start-up characteristics and management accounting methods are presented, the role of management accounting is discussed via using the analytical framework. This framework is based on Lebas' (1995) research on the performance measurement. The analytical framework consists of five different dimensions. These dimensions are considered as the fundamental reasons for performance measurement. Using the analytical framework, this study examines, for example, the fundamental reason of use, the performance and the effectiveness of the different management accounting methods. Finally, these findings are reflected to the characteristics of a start-up company. This way the study derives the role of management accounting on the basis of previous scientific literature.

The results indicate that the role of management accounting consists of different traits. According to the study results, the role of the management accounting in a start-up company is to provide the most useful and accurate information as efficiently as possible. Additionally, management accounting methods should not be only focused on past performance as the historical performance analysis is considered less meaningful than planning of the future. The internal performance analysis is considered more important than external comparation to other companies. Finally, management accounting shouldn't be fixed to company strategy too heavily. Moreover, management accounting in a start-up should be flexible and apt for changes in short intervals.

The results of the study are satisfying and according to the expectations. The study itself provided no particular surprises. Being a summarizing study on the previous scientific literature, the Pro gradu could be used as a manual for start-up management. Especially the finance professionals in start-ups would benefit delving into the research as it thoroughly maps the role of management accounting based on the comprehensive scientific literature.

Keywords
Budgeting, Planning, EVA, Balanced Scorecard, ABC, Benchmarking, performance measurement
Additional information

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1 INTRODUCTION

At the moment, one of the hottest topics considering the field of business are start-up firms. After the latest recession and couple of excessively successful start-up ventures, the Finnish economy is more interested in start-ups than ever before. Many universities are increasing cooperation with start-up saunas and other similar brainstorming activities to get start-ups and visionary students together.

In addition to being a hot topic, start-ups actually drive economic growth. New companies drive economy nowadays and studies show that generally speaking new enterprises effect development of companies significantly (Fritsch, 2013).

Start-ups are branded generally as an idea mills that try to aim high and achieve greatness hastily. However, there are costs considering the kind of business operations and not all start-ups achieve their goals. Start-ups have unique characteristics when compared to other businesses. For example, start-ups can have negative cash flows for quite long time and also make only losses before hitting the gold vein. In addition, start-ups often have limited resources both time- and headcount-wise.

Altogether the statement above raises many questions. How management of the start-up knows that they are doing right things right or wrong things wrong? With limited resources, how management should conduct accounting to provide necessary information for decision making. It all comes to the one major issue: how to conduct management accounting?

In the start-up mode, a company tries to achieve a certain role in the global or national market. It will pursue this with any means necessary and without controls. This refers to unclear budgeting, untraditional measurement of profitability of the employees or business units and planning difficulties. In other words, it is a real challenge to estimate and evaluate different kind of financial and business performance.

Traditional measurement methods like simple gross numbers and earnings numbers are usually a good starting point for evaluation and assessment of a company's activities. A company in start-up mode lacks continuous and coherent earnings in both short term and long-term. Also, there can be great variance in profitability and business processes in short term. When it comes to use of traditional management accounting methods, it is fairly uncertain to assume any kind of usefulness without holistic analysis.

The idea and motivation of this research is to discuss the role of management accounting in a start-up company setting. This discussion is based on the prior literary findings where different kinds of management accounting methods are reflected in the analysis framework and presented in comparison to each other and reflecting the unique characteristics of a start-up company with the ultimate goal of understanding the role of management accounting in a particular setting of start-up environment.

Research questions are defined to reach the goal of the thesis. This thesis' main research question is: "What is the role of management accounting in a start-up company?" The research problem is quite extensive and thus few limitations have to be applied. On theoretical level, one possible way to categorize all known management accounting practices is the popularity of use in practice. For example, all management accounting methods can be divided between actually used practices and not actually used practices by start-ups.

Assumedly, generally the most popular management accounting methods might not be popular in start-up companies. To ensure holistic view of management accounting, this study has to include both management accounting methods actually used in practice and popular management accounting methods not necessarily used in start-up company. By including both not actually used but popular practices and actually used methods, it is possible to discuss the role of management accounting more thoroughly.

When looking for an answer to the main research question, additional assisting research question are introduced. Following these additional research questions, we end up with results answering to the main research question. These questions form the framework and chapters for the whole thesis work. First, this study will discuss "What is a start-up company?" As the aim of the study is to assess the role of management accounting in a start-up company, the characteristics of a start-up company are discussed and conclusions are driven based on the prior literary findings.

After answering to the first basis question in the chapter two, the second research question is presented as "What kind of management accounting methods start-ups actually use?" This is answered by a summary on the previous research findings. The subsequent question "What kind of management accounting methods are the most popular management accounting methods?" is answered by referencing findings provided by prior literature. Finally, this study determines five to six different management accounting methods for further analysis. These methods include at least two of the most used methods by start-ups in practice and most popular management accounting methods generally.

As mentioned above, the study applies two different dimensions or perspectives. To evade arbitrary selection bias, the research framework is based on two academically accredited sources from both perspectives, actually practiced management accounting methods and not used but popular management accounting methods. First, previous studies have shown evidence on the management processes actually taken into use by start-ups (Davila & Foster, 2005; Granlund & Taipaleenmäki, 2005; Moores & Yuen, 2001). From these sources, the actually used management accounting practices discussed and evaluated are chosen. Second, this study uses findings of Guffey's (2014) citation research on Epstein and Lee's (2016) serial "*Advances in Management Accounting*" in determining the most popular management accounting methods to include in the research.

After the framework has been established, five to six methods are chosen and thoroughly introduced and discussed. Based on the previous literary findings, the management accounting methods are presented from multiple points of view. For example, their theoretical grounds are presented, practical application discussed and performance as a management accounting method assessed among all other meaningful things. Moreover, prior literature findings could answer to questions, to name a few examples: "How the system is used? Who it affects? Who uses the system? For who the results are for? What is the scope of the system? Is the management system strategical tool or operative indicator?".

All of the presented and discussed management accounting methods are tied together by applying an analysis framework to the prior literature findings. The comparison of different kinds of management accounting practices are not necessary comparable inherently. However, when all of the management accounting methods are reflected to the analysis framework, they became theoretically comparable. In this study, the analysis framework is based on Lebas' (1995) research, where the theory of performance measurement is introduced and the framework for different measurement dimensions are presented.

First of all, Lebas (1995) divides performance measurement to two fundamental questions "*Why do we want to measure?*" and "*What do we measure?*". Answer to latter question is performance. However and more importantly, the reasons for measuring are categorized into five dimensions. These five dimensions of reasons form the analysis framework of this study.

The first dimension of reasons for measuring is past performance. It is important for companies to understand where they come from, what they have done and how they got here. In addition, past performance lays the foundation for many analyses. (Lebas, 1995.)

The next dimension is the current situation of a company and its processes. To be successful company, management has to keep operations and performance up-to-date and match industry standards. This is done by measuring current operations and evaluating them in reflect to the market situation. (Lebas, 1995.)

Three last dimensions are all related to firm's future. Third dimension is the companies' future goals. Importance lies in the measures and how the measures support and corroborate future goals and objectives. By measuring, management is able to verify company objectives and the roadmap. (Lebas, 1995.)

The fourth dimension relates to plan for future. After the plan and the goals of the company are clear, management has to be able to measure company performance on the way to complete planned objectives. Without measures, management is not able to know if the planned actions are leading company in right direction. (Lebas, 1995.)

Finally, company and especially management has to be able to verify the underlain goals to be matched or not matched. With measures management is able reflect the performance of the company against the earlier set goals. In addition, the feedback about the goals is beneficial for many parties. It can be used for rewarding purposes and basis for future plans. (Lebas, 1995.)

The above framework will be used in the analysis of effectivity and use of the management accounting methods. Based on the start-up characteristics established in the chapter two and the literature findings of the presented management accounting methods, the role of management accounting is discussed. Eventually, the final conclusions and discussion on the role of management accounting via the usefulness of the analysed management accounting methods is summarized in the chapter 4. “DISCUSSIONS AND CONCLUSIONS”.

The research method applied in this study is a simplified form of a systematic literary review, SLR. The aim is to gather prior research of the management accounting methods, analyse the prior literature and the findings and summarize on the results. Prior literature is described as scientifically accurate journal articles. Optimally this thesis aims to employ only peer reviewed journals on the addressed matters. However, it is notable that this study utilizes educational material, for example admissible educational books, and some timely articles to enhance and emphasize topicality of the issues.

The research method SLR was original introduced by Tranfield, Denyer and Smart (2003). The research method includes an analysis based on the three stages. The stages are divided into planning the review, conducting the review and reporting. As expressed in the Figure 1. below, the stages include different procedure steps. The stage 1, planning the review, consist of the initial motivation for the research and the hypotheses regarding the answers to the research question.

Table 1. The Systematic Literature Review procedure

Stages	Purpose
Stage 1 - Planning the review	Introduction - the motivation for the research. What needs to be reviewed to answer the research questions
Identification for the need for a review Preparation of a proposal for a review Development of a review protocol	
Stage 2 - Conducting review	How the review is performed? How the cited studies are selected. Short analysis on the quality of the research, is the study qualified in regards to the topic discussed? What the research implies in regards to the topic discussed?
Identification of research Selection of studies Study quality assessment Data extraction and monitoring progress Data synthesis	
Stage 3 - Reporting	1. Short descriptive report on the citations applied 2. What is the input of the research in regards to the topic and or research question.
The report and recommendations Getting evidence into practice	

Source: Adapted from Tranfield et al. (2003)

The stage 2 includes procedure steps regarding the actual data collection and handling process. In this study, the first steps of the stage 2 are uniform across the research. The review is performed by using two different databases: EBSCOhost and ProQuest. These two databases are searched with topic related terms. From the results, qualified studies are included in the analysis. Furthermore, qualified studies are discussed.

The stage 3 includes procedure steps that are completed in every chapter. This stage is the output stage of this research method. In this study, the reporting part has two different dimensions. First, short description of the study characteristics. Second, the input of the research in relation to the topic at hand. The form of the report is a text table which is presented in the end of chapter.

As this study derives its research from previous literature and doesn't include particularly numerical or statistical analysis, the use of SLR method is justifiable and logical. When conducted accordingly, SLR can provide scientifically proven results. Moreover, replicability makes it basically bias free. However, as this study uses a simplified SLR method, the replicability of the SLR is questionable. Eventually, this leads to a certain bias in form of arbitrary selection bias as a result from the decisions made by researcher. The bias is comprehended and taken into consideration later on in the final chapter when drawing conclusions.

The nature of this study is qualitative research consisting of prior literature in the start-up framework. The scope of the study is considered broad with restrictions mentioned above. Also, the research can be described as positivistic realism study regarding to the analysing of the existing literature when firm specific characteristics apply.

2 DEFINING START-UP CHARACTERISTICS

What makes a start-up firm a start-up firm? Currently, the term start-up is on everyone's lips but what does it truly mean. Fundamentally speaking start-up firm has many distinct and essential differences when compared to businesses in general. In this chapter the term start-up is broken down and explained profoundly and comprehensively.

This chapter aims to comprehensively discuss and elaborate on the first research question: "What is a start-up company?". After the systematic literature review, the study concludes on the characteristics of a start-up. These start-up specific characteristics are later on reflected in the actual review of the performance measurement and valuation methods and technics.

Methodologically speaking the research model stage 2 takes place. The review is performed by searching two major databases, EBSCOhost and ProQuest. The key search terms are identified and they are topic related terms. The search results are reviewed to see if they qualify for the research. In addition, if search result study is based on earlier research, the earlier research is used in the study instead of the actual finding. After collecting the data available, the previous scientific literature, the impact of the findings onto the study are discussed in the text.

The stage 3, reporting phase, takes place in the end of the chapter. The report layout is a table. Like described in the "Introduction" and Table 1., the table includes a descriptive report of the study and input report of the results to the study and the topics discussed. The table works as a short summary on the SLR research findings and a recap on the earlier discussion.

In the first subtitle the basis for founding of a start-up is discussed. The discussion is based on prior research and the common knowledge. After this comes the in-depth walkthrough of the concept of Organizational Life Cycle (Miller & Friesen, 1984; Haire, 1959). This chapter's third subtitle consists of discussion about a start-up financing with exploration of possible ways of raising capital. In the fourth subtitle, company internal operations are discussed. The scope of organization, level of supervision and diffusion of decision-making processes are an indicator of a firm's situation. In the last part, the conclusions considering start-up characteristics are drawn and discussed further.

In all subtitles the findings of different sources are discussed in relation to each other. This way the research validates the fundamental properly and creates ground for later analysis. Furthermore, by comparing the literature findings, this study and findings will be more generalizable, logical and additionally more useful and insightful.

2.1 New firm – founding a start-up

Fundamentally a business or a company starts with an entrepreneur or a group of entrepreneurs with a vision. Entrepreneurs usually base their founding actions on self-made decision to found a company rather than creating a product or service. The first thing entrepreneurs have to ask from themselves is whether this vision is worth undertaking. After this comes the part of figuring out what to do next. The literal process from pure want to actual founding can take time and is dependent on many case specific factors. (Stolze, 1999; Munoz-Bullon, Sanchez-Bueno & Vos-Saz, 2015.)

Based on literature, start-up firms have many different definitions. Some argue that start-up is a phase of a certain length of time in the beginning of a company. In the Forbes article "What is A Startup?" Natalie Robehmed (2013) has interviewed start-up people that define start-ups profoundly. One description for start-up is a company that solves a problem without obvious solutions and guaranteed success. This is other way to express the riskiness of start-up business. Another description for a start-up is a combined mind-set of multitude of similarly thinking people. This highlights the innovativeness of the start-ups, the most basic characteristic of a start-up company.

The mainly defining factor for start-ups is the capability for growth. Globally speaking start-ups are also different from small firms as being unconstrained by geography. Start-ups tend to achieve large scale quickly and may embark globally more easily than traditional companies. Also, the spirit at the workplace and the goals of the company often are in a highlighted role in a start-up company. (Robehmed, 2013.)

Considering previous research on start-ups and moreover the progress of defining start-ups seems vague. Mostly researchers define start-ups as new companies (Kessler, 2007; Churchill & Lewis, 1984). This rejection of more in-depth inspection is due restrictions of data in use. Even though this generalization is not all the way comprehensive it still provides a valid ground for research.

In addition to previous mentioned, Peterkova & Wosniakova (2016) introduce following characteristics of start-up. Start-ups are innovative ventures that are driven by risk taking individuals with limited access to capital. By size, start-ups vary from small to medium sized companies. As mentioned earlier, start-ups have estimates of high future profits.

These themes mentioned above do hold to some extent quite well in regards of what is a start-up company. The aspect of visionary founders, the similar thinking and spirited people and ability to scale are definite start-up characteristics. However, it seems that usually researchers usually apply the age of company as the only defining characteristic of a start-up company.

It is arguably certain that age of a company is the easiest characteristic to use when conducting research. Although, if no other characteristics are taken into consideration, the results may not be generalizable. This is due to the fact that all new companies are not able to be considered as start-ups but new traditional companies. The new traditional companies have low growth target, lack of innovation and tend to increasingly avert excess risk.

To summarize, the ideal start-up company characteristics are listed above and they are many. Due the lack of information, the use of age is the easiest way to characterize start-ups, but same time this may stem risk for including other companies than start-ups in the research.

2.2 Organizational Life Cycle concept

One specific way to define organization stages is the concept of Organizational Life Cycle (OLC). This concept is based on prior research and it introduces the different stages of development of businesses. Originally, Organizational Life Cycle theory was introduced by Mason Haire in his book "Modern organization theory" (1959). The OLC includes division of corporate life-cycle into five stages: birth, growth, maturity, revival and decline. Businesses are positioned in one of these stages based on their firm specific characteristics. (Miller & Friesen, 1984; Haire, 1959.)

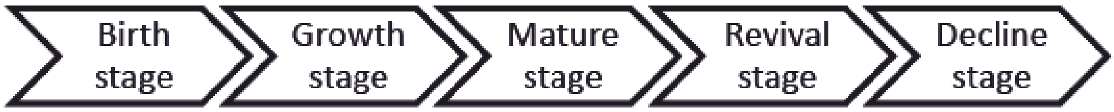

Figure 1. A simplified Organizational Life Cycle (OLC) concept.

As the emphasis of this study is start-up companies, the first two stages of OLC concept are analysed. The last three stages of OLC concept: maturity, revival and decline, are left out of the discussion since they are lacking relevance for the study. In their study, Jawahar and McLaughlin (2001) determine the first part of the OLC to be start-up and after that comes emerging growth. By this division, Jawahar and McLaughlin (2001) draw a line between growth company and start-up in the emerging growth. In other words, according to Jawahar and McLaughlin, start-up becomes a growth company when the pace of the corporate growth reaches accelerating speed.

The birth stage businesses have some distinguishable characteristics. Primarily these companies are young at age, heavily controlled by owners and have apparently basic organizational structure. Additionally, founders of the firm have a hands-on approach to business and lack interest in actual management activities. The decision-making processes are based on minimal information and overall the company is searching for its place on the market. (Kallunki & Silvola, 2008; Miller & Friesen 1984.)

Other descriptive characteristics of an early stage company are ability to attain capital to meet requirements of stakeholders and contracts (Dodge, Fullerton & Robbins, 1994). Moreover, Dodge and Robbins (1992) found out that external problems outweigh the internal problems in terms of importance and vitality for business. In the study (Dodge & Robbins, 1992) mentions inter alia customer acceptance and cash flow and their study results imply that the significance of these external problems is more critical in early stages of the OLC than in the mature stages.

According to the Miller and Friesen (1984) study, early stage companies are internally composed of people with similar mind-set and skills. Furthermore, to business operations, companies at the early level embrace risk taking and processes are highly centralized. Regarding market presence, early stage companies are not able to focus on large scale and they usually focus highly on particular market.

The growth stage follows the birth stage in the OLC concept. Miller and Friesen (1984, via Kallunki & Silvola 2008) characterize growth company as follows. Growth companies endeavour sales growth and begin to develop more formal procedures and internal rules. Also, the operations start to grow geographically and operationally. In addition, the decision making is expanded to middle management that will provide more accurate information about operational performance.

Strategically, growth companies continue on innovative premise but start to apply diversification and vertical expansion as well as horizontal growth. The main differences between growth and mature stage companies are the stabilization and accretion of corporate bureaucracy. The focus from growth and innovativeness shifts to enhancing of operations and skimming of business processes. (Miller & Friesen, 1984.)

In addition to aforementioned, Jawahar and McLaughlin summarize that start-up company becomes growth company when the company achieves to reach success and overcomes the prior stage of immediate concern for survival. The main problems of the company shift from external factors to internal factors. For example, handling growth in production and demand and managing supply and establishing the corporate organizational structure become extensively significant to company. (Dodge & Robbins, 1992; Jawahar & McLaughlin, 2001.)

Regarding the OLC concept, the start-up company lies somewhere in between birth and growth company. The way how Jawahar and McLaughlin (2001) describe the first stage of OLC the start-up phase is descriptive but the same time challenged. Like mentioned earlier, all new companies are not start-ups necessarily. Earlier in this study it was stated that one the main characteristics of a start-up company is the high growth target.

Regarding the growth prospects and other previous findings, the most suitable determination for a start-up is somewhere in the middle of birth stage and the growth stage in the OLC theory. It can be argued that the OLC concept is still holding in globalized world and birth stage and growth stage are closing on each other and it is worth further studies to find out, if these two are coming together and merging into a new first stage, start-up phase. In the end, nowadays new companies try to go global faster than before (Pöysä, 2016).

2.3 Start-up financing and capital

At this moment, businesses are introduced with a multitude of ways to obtain capital for their newly founded companies. On the fundamental level capital can be raised in two ways: via debt or equity. The difference between debt and equity is essentially the nature of the capital transaction and the terms of the agreement. Debt financing consists of external capital, which is paid back with detailed policies. Equity financing is based on exchange of ownership of the company for certain amount of money.

Practically financing can be divided into self-financing, institutional financing, public financing and venture financing. All these forms of financing are present in business environment globally, but they have a different kind of emphasis in different business environments. For example, in Europe bank financing is more utilized traditionally than market and equity financing. On the contrary, in market oriented North American business environment equity-based financing is traditionally more utilized.

All these financing types can be categorized in more accurate detail. Self-financing contains mainly entrepreneurs and entrepreneurs next of kin or close relative funding.

Usually, these self-financed ventures are small on scale and they are not looking for growth opportunities actively or they are not capable of growing (Atherton, 2012).

Institutional financing, i.e. bank debt financing, is naturally different than the other financing methods, since it has strict payback policies compared to other financing policies. Institutional financing has more presence in European and institutional oriented business environment setting.

Companies step into the public financing as they prepare initial public offering, IPO. The company gathers capital with IPOs via selling equity ownership to external public. This way company can generate capital on the cost of company ownership.

Venture financing is fundamentally close to public financing but has some relatively meaningful differences considering start-up financing. The idea behind venture capital is different than other forms of financing. The venture capital companies and business angels exchange capital to equity, as in public financing, but after some time the venture capital company or business angel sells its equity forward. Venture financing often require certain strict policies regarding business' economic performance via several different economic measures such as company growth or profitability. Unlike in debt financing, where capital institutions are only interested in the payback of the capital loans i.e. debt. (Chaganti, Decarolis & Deeds, 1995.)

Hellman and Puri's (2002) study showed evidence that venture capital furthermore influenced the development of companies' internal structures and operations. As mentioned earlier, venture capital involves strict contractual covenants that usually differ from the traditional loan covenants. Hellman and Puri's (2002) research results show that companies utilizing venture capital usually submit or give in to the venture capitalist will and develop organization and operational processes as venture capitalist. However, usually these developed processes are seen as a benefit or support for the company and the end result is positive from the company point of view.

A noteworthy downside of venture financing is the cost of capital. Usually venture financing has more incorporated risks in valuation, which in turn increase the cost of capital. Studies have shown that the asking price of venture capital is often too much and start-up companies are not able to accept the high costs. Additionally, the risk of the investment of venture capital into a start-up is incorporated two times. First, single investors have calculated their own risk factor when they have made decision to join the venture capital institution. The second, the venture capital fund manager incorporates risk in to the given venture capital loans to reflect the rate of required return for the venture capital fund investors. (van de Schootbrugge & Wong, 2013.)

Venture financing can be a business angel financing or a venture capital company financing. Basic differences between business angels and venture capital companies are that business angels are singular persons and venture capital companies are financing businesses that only look for new companies to buy in. However, these both venture financing types have similar agenda considering policies for company performance and scope of equity re-selling.

As Atherton (2012) found out in his study, venture capital is applied in multitude of different forms and they don't follow certain global or general policies. The principals of venture capital financing are persistent generally but case specific policies and practices tend to vary.

As prior literature has shown evidence, the possibilities of start-up financing do not tend to meet with supply of financing (Chaganti et al., 1995, Atherton, 2012). Binks and Ennew (1996) showed that start-up companies do have many restrictions considering financing of their respective ventures. There are restrictions on both debt and equity-based financing. As a young aged company, the unreached profitability tends to restrict ability to generate institutional debt capital. On the other hand, problem with lender is the information asymmetry. Start-up companies may not have enough collateral or other ways of signalling their success to financiers. (Binks & Ennew, 1996.)

Studies also indicate that start-ups seek for venture capital financing for monetary and support reasons. Usually venture capital partners give advice on corporate processes in addition to lending monetary funds or buying equity of the company. (Hellman & Puri, 2002). Start-ups usually are not able to use debt financing in the first stages but in the later stages debt financing becomes more prominent option for financing. As

Binks and Ennew (1996) study results show evidence, start-ups don't have same kind of abilities to look for debt financing due to riskiness of business and uncertainty of the future. IPO is usually considered possibility for a developed and matured company. Self-financing is usually not a possibility for start-up financing, unless entrepreneur is wealthy enough to reach high growth targets, which generally is not the case.

2.4 Characteristics of internal operations of a company

A company's internal operational processes and organizational structures are a way to define company. As a corporate grows in scale, the scope of management expands in the relation as well. These internal operational processes include different kinds of actions varying from simple operational actions like miniscule administrative tasks to actual middle and upper-middle management and decision making.

When a company is young at age, the corporate structure is redundant or irrelevant. In the early stages, administrative tasks are done with less structure and coherence and with the expense of cost efficiency. For example, the operating of basic administrative tasks are done with greater expense and distance between strategic decision making and every day operations are at minimum. In start-up company's management has often hands on attitude towards daily operations. (Miller & Friesen, 1984; Haire, 1959.)

Further developed companies start to form organizational structure to enhance activities and become more cost efficient. These older at age companies have usually established their profitability and shifted their focus from improving product or service to cost efficiency and general profitability. Since the general focus of the companies and employees shift from developing operations to maintaining and structured growth, the structure of the company needs changes to adapt to situation. (Miller & Friesen, 1984; Haire, 1959.)

Governance level of company can also be determinant of corporate stage. At early stages governance can be fragmented or even miniscule and close to redundant. As the corporate grows in scale it needs more governance to function. Start-up companies tend to have less governance due to lack of governing of employees and organizational structure. Furthermore, there are differences in growth company and mature company corporate governance.

In Ramaswamy, Ueng and Carl (2008) study indicated that growth company has lower score of corporate governance compared to mature companies. This is due to fast paced growth where initially flat management structure doesn't have the time to develop as quickly as business operations.

Ramaswamy et al. (2008) study concluded that growth companies do have adequate and mandatory corporate governance from the point of view of the legislative bodies but the quality of the corporate governance lacks against the mature companies' corporate governance practices.

Munoz-Bullon et al. (2015) study result showed that a start-up with access to heterogeneous resources will have significant effect on the possibility of successful venture. Additionally, team with high industry experience with heterogeneous background provides start-up with significantly better odds of being successful venture eventually.

To summarize, internal start-up characteristics are flat and straightforward organizational structure, lesser corporate governance body than mature companies and although flat organization the extensive expertise of team members involved in the flat organization.

2.5 Conclusions of characteristics of a start-up

According to the SLR procedure stage 2, the report of the SLR findings have been discussed on the chapters 2.1 - 2.4. The stage 3 of the SLR procedure, the report including the descriptive and input in regards to the topic is displayed below in table Table 2. The conclusions on the characteristics of a start-up are afterwards drawn and discussed.

Table 2. SLR report in regards to chapter 2 topics

Author	Year	Title	Input to the study
Stolze	1999	Start up: An entrepreneur's guide to launching and managing a new business	Characteristics of the entrepreneur
Munoz-Bullon et al.	2015	Startup team contributions and new firm creation: The role of founding team experience	Characteristics of the efficient team structure of an early stage company
Kessler	2007	Success factors for new businesses in austria and the czech republic	Definition of a start-up
Churchill & Lewis	1984	Lessons for small business from the recession	Definition of a start-up
Peterkova & Wosniakova	2016	Evaluation of start-ups and spin-offs by using economic or non-economic variables	Characteristics of a start-up
Miller & Friesen	1984	A longitudinal study of the corporate life cycle	Characteristics of a early stage and growth stage company
Jawahar & McLaughlin	2001	Toward a descriptive stakeholder theory: An organizational life cycle approach	Description of the first stages of the OLC
Kallunki & Silvola	2008	The effect of organizational life cycle stage on the use of activity-based costing	Characteristics of a birth, early and growth stage company
Dodge et al.	1994	Stage of the organizational life cycle and competition as mediators of problem perception for small businesses	Characteristics of a early stage company
Dodge & Robbins	1992	An empirical investigation of the organizational life cycle model for small business development and survival	Characterisics of a early and growth stage company
Atherton	2012	Cases of start-up financing	Self-financing and venture financing
Chaganti et al.	1995	Predictors of capital structure in small ventures	Venture financing
Hellman & Puri	2002	Venture capital and the professionalization of start-up firms: Empirical evidence	Venture financing
van de Schootbrugge & Wong	2013	Multi-stage valuation for start-up high tech projects and companies	Venture financing
Binks & Ennew	1996	Growing firms and the credit constraint	Restrictions in financing

Haire	1959	Modern organization theory	Characteristics of a early stage and growth stage company
Ramaswamy et al.	2008	Corporate governance characteristics of growth companies: An empirical study	Characteristics of a corporate governance in early stage firms

As a conclusion, start-ups have many different characteristics as assumed in the beginning of the chapter. Considering the prior literature findings that are presented in this chapter, we are now able to define: what is a start-up company? The aim of this chapter was to generate the basis for start-up company and expand the common view of start-ups. Start-up characteristics are discussed from many different but relevant perspectives that have an effect to the start-ups nationally and globally. Furthermore, the findings of this chapter are evaluated and discussed more specifically.

The usual approach for start-up definition is the age of the company in question. This study explored this view further and further literature review points out that not every new venture can be labelled as a start-up company. For example, the economic aim of the company is relevant in defining start-ups. Many new companies do not have growth targets or even need for fast-paced growth, thus they should not be assimilated with high growth target companies that start-ups essentially are.

In addition to age of the company, the size of the company has been a parameter in measuring start-ups. This means that small companies are start-up companies. Moreover, small and new companies are generally accepted as start-ups in prior research. To summarize, start-ups tend to be small organizations but not all small enterprises are start-ups.

Similarly to age, the aforementioned characteristics give more insight to the matter. For example, the focus of the company and people involved in the company and the business idea are good characteristics and together provide more coherent frame for start-up company definition in comparison to company size only.

One major component of start-up characteristics in present business world is global growth and global nature. As mentioned in earlier, nowadays global targets are set much earlier than before and start-up companies take more risks in international ventures. Rapid international expansion has been made easier by modern technology. Easier access to international market is both advantage and risk for new and old companies. Taking advantage of global market is definitely a characteristic of a start-up company.

One key factor considering start-ups is financing. Financing is a simple way to draw line between start-ups and other companies. The key driver related to financing is the risk of the company looking for capital. As prior literature and findings have shown, start-ups mainly use venture capital as a funding practice. Venture capital is the way to raise capital as institutional financiers deter risks and IPOs could be hazardous with a risky company.

Firms using IPOs are past the risk of growth stage and are in a stage of continuous and steady growth and profitability. Increase in profitability decrease the amount of risk the company bears which then increases the possibility and scope for institutional debt capital as well. Entrepreneur self-financing in most cases leads to lack of growth opportunities denying fast growth.

Additionally to aforementioned venture capital financing, the supplemental business intelligence support from venture capital institutions and venture capitalists is high appreciated by the start-ups and especially sought for. Downside of venture capital is the lost opportunity for entrepreneurs to effect on organizational and management decisions as usually venture capital includes specific rules and covenants that bind entrepreneurs more operationally than ordinary debt covenants.

When it comes to corporate structure and governance, start-ups lack in both compared to more developed companies. The lack of these is not due ignorance but due lack of operational means, capabilities and reason. Regarding corporate governance, start-ups are not able adjust the management and organizational structures as efficiently as the business operations grow.

Moreover, as the focus of start-up companies is mainly to develop their product or service, the cost that comes from neglecting corporate structuring and governance is lesser than profit that comes from focusing on product or service development as the time available for start-up management is limited.

Based on the aforementioned discussion, the study concludes that the first research question: "What is a start-up company?" is answered profoundly. This determination of a start-up and characteristics of a start-up company are revisited in the later chapter. Especially in the end of chapter 3, where the presented management accounting methods are analysed form the point of view of a start-up. Applying the aforementioned characteristics criteria to framework presented management accounting, the research can draw conclusions on the role of the management accounting in a start-up setting.

3 MANAGEMENT ACCOUNTING METHODS

The third chapter of this research studies and elaborates the measurement technic and methods from two point of view and in the framework of a start-up company. First, the management accounting methods actually used are presented and the theory behind determining the actually used methods is explained.

Second, this study discusses popular management accounting methods. Similarly to above, the theory behind determining popular management accounting methods is explained. Finally, in the last paragraph, the prior literature findings are compared to the framework of start-up company based on the chapter two conclusions.

The basics of management accounting are presented from the point of view of the fundamental theory of performance measurement thoroughly researched by Lebas (1995). The academic and theoretical framework lays the foundation on the analysis of management accounting methods discussed further in their own chapters.

Theory behind actually used accounting methods is based on a certain prior literature, for example Davila and Foster (2005), Granlund and Taipaleenmäki (2005) and Kallunki and Silvola (2008) to name a few. The prior literature is discussed more later on in the start of the said chapter.

In the same way, the popular management accounting methods are determined by prior literature. Guffey's (2014) citation research on Epstein and Lee's (2016) serial "*Advances in Management Accounting*" presented findings that show which management accounting methods have been most cited during the lengthy period of Epstein and Lee's publication. The findings of Guffey are discussed further in the start of the said chapter.

Regarding the methodology the research of management accounting methods starts with the introduction of SLR stage two. Similarly to the chapter 2 procedure, the independent SLR process takes place. First, search with the topic related key terms is conducted in the EBSCOhost and ProQuest databases. The search results are analysed to see if they qualify for this study.

After finding the qualified literature, they are discussed in their respective topics. Finally, the research method's stage three takes place. In the end of every key topic, the results are summarized in a table form. The table includes a short descriptive report and the input report on the discussed topic.

Regarding the research questions of the study, two additional research questions are discussed and reflected in this chapter. "What kinds of management accounting methods start-up companies actually use?" is evaluated based on the prior literature findings as determined earlier. "What kinds of management accounting methods are the most popular management accounting methods?" is answered by prior literary findings likewise to former research question. The answers to to these two questions and findings of the first assisting research question "What is a start-up company?" are compared in the last part of this chapter. This comparison lays the foundation for the conclusions presented in the final chapter of this study, where the main research question "What is the role of management accounting in a start-up company?" is discussed.

3.1 Management accounting methods actually used by start-ups

There's been multiple studies evaluating the use of management accounting methods in start-up company. For example Davila & Foster (2005), Davila & Foster (2007), Granlund & Taipaleenmäki (2005), Moores and Yuen (2001) and Sandino (2007) have studied the management accounting systems used in the early stage company. In this context, the an early stage company is considered a start-up company as discussed in the chapter 2 in OLC theory.

According to prior literature findings, early stage companies tend to have different kinds of management control systems in place when compared to later stage companies (Moores & Yuen, 2001; Davila & Foster, 2007). Unsurprisingly, prior literature findings indicate that the management accounting methods actually used by start-up companies tend to include basic operational and planning systems (Sandino, 2007). For example, operating budgets and cash budgets (Davila & Foster, 2005;Armitage, Webb & Glynn, 2016) , forms of financial planning eg. cash projections and sales projections (Davila & Foster, 2007), rolling budgeting and different kinds of reporting

(Granlund & Taipaleenmäki, 2005) and other less formal systems (Moores & Yuen, 2001).

The need for management accounting technics vary in the actual stage of the start-up company (Moores & Yuen, 2001; Armitage et al., 2016), the field it operates on (Sandino, 2007) and in regards to the company size (Armitage et al., 2016). For example, Kallunki and Silvola (2008) research findings present evidence on the use of ABC on different stages of OLC. Companies on the later stages of OLC use ABC more often. Moreover, Jänkälä and Silvola (2012) research showed evidence on the fact that start-ups with adequate resources tend to take up ABC earlier and they benefit from it in the later stages of the company.

In addition to the above, Davila and Foster (2007) research results showed evidence on the different kinds of management accounting systems taking place in different stages of OLC. After the financial planning, including operating budgets and different kinds of projections, companies tend to take up HR planning, strategic planning and finally financial evaluation.

According to these findings on management accounting methods actually used by start-up companies, this study concludes to further analyse budgeting and planning. These are discussed further on their own chapters.

3.1.1 Budgeting

According to the prior literature, budgeting has been traditionally a key part in management control systems due to its ability to include multiple and possible different parts of business and link them together in a measurable way (Otley, 1999; Hansen, Otley & Van der Stede, 2003). In theory, budgeting measures profitability via calculating and allocating revenues and costs. In practice, the performance is measured by analysing on what level of cost is allocated to reach wanted level of revenue. (Otley, 1999.)

Companies' budgeting practice usually is a financial oriented reporting, in which costs are allocated to the certain cost center or structure and analysed alongside the revenues generated. By nature, budgeting is based on historical performance. (Otley, 1999.) Prior literature shows a lot of criticism towards the traditional budgeting in regards to performance measurement and those findings are discussed later.

Hansen & Van der Stede (2004) study the reasons why companies use budgeting in the first place. They study operational planning, performance evaluation, communication of goals and strategy formation. Their research findings suggest that the four reasons do overlap but they are significant singularly as well. Moreover, their findings indicate that overall reasons to budget vary and are naturally circumstantial and are related to characteristics of the budget.

Traditional budgeting practice usually includes the following guidelines. First, the company management forecasts revenue and establishes budgetary goals. Second, keeping the pre-set goals in mind, the budgets are formed on previous period budget with certain adjustments. Third, the budget managers negotiate with the company management and after all are aligned, the company management approves budgets. Despite the simplicity and the constrains involved in traditional budgeting, it's still used by all companies. (Bunce, Fraser and & Woodcock, 1995.)

Bunce et al. (1995) research shows that traditional budgeting as a practice is dysfunctional. In addition, their findings suggest that the budgeting as such is too historical and needs links to strategy and other performance factors to be successful. In other words, their study implies that there is not and even won't be any advanced budgeting practice that would solely be sufficient management accounting practice for a company. However, if budgeting is a part of a holistic management accounting system, it would satisfy the needs of functionality.

Hansen et al. (2003) research supports Bunce et al. (1995) findings. Their study on the budgeting practitioners showed evidence that traditional budgetary practices seem to be outdated, can't match the requirements of the promptly and continuously changing business environment, stifle initiative, shifts focus from value creation to cost cutting and overall are more costly than beneficial. Their research also shows that practitioners have actually introduced some tweaks and changes and, for example, rolling budgets have been used by some practitioners. Moreover, Hansen et al. (2003) suggested that beyond budgeting and activity based budgeting might provide solutions to previously introduced problems that traditional budgeting faces.

Continuing on the limitations, budgeting is one of the most researched topics of management accounting (Covaleski, Evans, Luft and Shields, 2003). For example, the effect of participation (Brownell, 1981; Shields & Shields, 1998; Libby, 1999), budgetary slack (Chow, Cooper & Waller, 1988; Fisher, Frederickson & Peffer, 2000; Rankin, Schwartz & Young, 2008; Merchant, 1985), effect of uncertainty (Alam, 1997; Marginson & Ogden, 2005; Frow, Marginson & Ogden, 2010), other problems including effect of budgeting to innovation (Ansari. 1979; Argyris, 1977), performance in certain setting (King, Clarkson & Wallace, 2010; Merchant, 1981; Libby & Lindsay, 2010) and practitioners experiences (Hansen et al, 2003) have been researched.

Previous studies have shown that participation of managers preparing budgets in the final decisions on the budget plays key role in the performance of said budget. For example, Brownell (1981) showed evidence that performance of budgets increase significantly if managers felt they were in control of their budgets. Shields and Shields (2003) analysed prior literature find out why managers participate in the budgeting process and what is the effect of participation. Their findings suggest that participation is most important factor for planning and control of budgets.

The nature of participation also has an effect on the budgeting performance. Libby (1999) study results show evidence that the best budgetary performance is achieved by including the factor of explanation. This means that if management gives managers explanation on why they did the last decisions regarding the budgets, the performance is significantly improved in comparison to only including the managers in the decision making process.

In all cases the budgeting is used, the factor of budgetary slack is present. By nature, budgetary slack refers to a part of budget that the preparing managers include in the budget to make sure they reach goals set by company management. Merchant (1985) research presented evidence that the creation of budgetary slack is depended on the setting and on the implementation of the budgeting process.

Slack can be battled many ways. For example, Chow et al. (1988) research showed evidence that in situations involving information asymmetry between superior and subordinate the subordinate pay scheme focusing on truthful budgeting practice end up with less slack than in case of slack-inducing pay scheme. Interestingly, their study shows evidence that in case of absence of information asymmetry the nature of pay scheme did not have significant effect on budgetary slack.

Fisher et al. (2000) and Rankin et al. (2008) studies also discuss the effect of interaction between superior and subordinate. Fisher et al. (2000) shows evidence that if negotiation between interactive parties take place during the budget setting, budget is affect by slack significantly less. Moreover, Rankin et al. (2008) study results imply that if subordinates gets to make the final decisions regarding the budget, the budgetary slack will be significantly less existent. Arguably the participation of managers and company management in the budgeting process drive performance.

Previous literature has also researched budgeting in the uncertain setting. Marginson and Ogden (2005) studied the use of budgets in uncertain setting and according to the study results the budgets tend to bring structure into uncertain situations. However, Marginson and Ogden (2005) note that even though budgeting creates structure, the use of budgeting altogether is a problematic as implied earlier by Bunce et al. (1995) and Hansen et al. (2003).

Frow et al. (2010) research indicates that in case of uncertainty, a flexible budgeting model called *"continuous budgeting"* provided means for managers to alter their budgets to reflect current business situation in better way thus enabling them to actively be in line with company strategy without constrains of an old budget based on historical situation.

In the context of uncertainty but with a different perspective, Alam (1997) research shows evidence on the nature and orientation of budgets in uncertainty. According to the study results, in uncertain situations budgets are more external oriented and, on the contrary, absence of uncertainty made budget more internally orientated.

Also, the effect of budgeting on the innovation and learning of the company has been criticized by prior research literature. Both Ansari (1979) and Argyris (1977) argue that using budgets might cripple the company's ability to innovate and learn as the budgeting is based on the historical data.

There are also studies that show evidence on the benefit of using budgeting. King et al. (2010) research results imply that companies using written budgets achieve higher performance than companies not using budgets. Similarly, Libby and Lindsay (2010) research showed evidence that when budgeting is used as a management accounting control system, company performs significantly better. However, Libby and Lindsay results imply that companies acknowledge the problems of budgeting but instead of leaving budgeting companies tend to take the problems into consideration in decision making.

Finally, Merchant (1981) researched the difference of types of budgets and the size of companies using budgets. Their findings imply that formal and more detailed budgets drive performance over simple budgeting. Moreover, their findings suggest that large companies enjoy better performance over smaller companies and they argue this is due to fact that large companies are more likely to have elaborate budgeting practices in place that drive performance.

Linking budgeting to company strategy is important as presented by Hansen et al. (2003) and Frow et al. (2010). In addition, Valenta (1982) studied planning and budgeting the relation between them from the performance point of view. Valenta (1982) suggests that managers only conducting budgeting tend to focus on short term instead of considering long term. In fact, it is recommended to conduct planning and link the planning with budgeting to keep the long term focus on budgeting as well as the short term focus.

If we reflect the framework introduced earlier by Lebas (1995) to the budgeting the restrictions of budgeting can be identified. From the five dimensions, budgeting in its traditional form considers the first dimension, past performance. Using budgeting managers have a view on the what has happened during a certain period. However, as stated previously, there might be ways to implement other dimensions of Lebas framework. For example, the third dimension, future goals, can be implemented into budgeting via active planning in the preparing phase of budgeting. This way company can be sure the budgets do align with their strategy.

Table 3. SLR report of the Budgeting

Author	Year	Title	Input to the study
Otley	1999	Performance management: A framework for management control systems research	Budgeting theory/practice
Bunce et al.	1995	Advanced budgeting: A journey to advanced management systems	Findings on traditional budgeting
Covaleski et al.	2003	Budgeting research: Three theoretical perspectives and criteria for selective integration	Previous literature study on budgeting
Alam	1997	Budgetary process in uncertain contexts: A study of state-owned enterprises in Bangladesh	Uncertainty and budgeting
Hansen et al.	2003	Practice developments in budgeting: An overview and research perspective	Problems in budgeting
Brownell	1981	Participation in budgeting, locus of control and organizational effectiveness	Participation in budgeting
Chow et al.	1988	Participative budgeting: Effects of a truth-inducing pay scheme and information asymmetry on slack and performance	Information asymmetry and payment schemes and budgetary slack
Fisher et al.	2000	Budgeting: An experimental investigation of the effects of negotiation	Negotiating and budgetary slack
Shields & Shields	1998	Antecedents of participative budgeting	Participative budgeting
Marginson & Ogden	2005	Coping with ambiguity through the budget: the positive effects of budgetary targets on managers' budgeting behaviours	Uncertainty and budgeting
Ansari	1979	Towards an open systems approach to budgeting	Innovation and learning in budgeting
Argyris	1977	Organizational learning and management information systems	Innovation and learning in budgeting
King et al.	2010	Budgeting practices and performance in small healthcare businesses	Budgets and performance

Libby	1999	The influence of voice and explanation on performance in a participative budgeting setting	Participation in budgeting
Hansen & Van der Stede	2004	Multiple facets of budgeting: an exploratory analysis	Reasons for budgeting
Valenta	1982	The planning-budgeting balance	Budgeting and planning
Rankin et al.	2008	The effect of honesty and superior authority on budget proposals	Budgetary slack in superior - subordinate interaction
Merchant	1985	Budgeting and the propensity to create budgetary slack	Managers' propensity to budgetary slack
Frow et al.	2010	"Continuous" budgeting: Reconciling budget flexibility with budgetary control	Uncertainty and budgeting
Merchant	1981	The design of the corporate budgeting system: Influences on managerial behavior and performance	Budgets and performance
Libby & Lindsay	2010	Beyond budgeting or budgeting reconsidered? A survey of North-American budgeting practice	Budgets and performance

3.1.2 Planning

According to the prior literature, planning can refer to multiple different methods of planning. Planning itself can refer to business planning (Becherer & Helms, 2009; Phillips, 2004; Kim, Aldrich & Keister, 2006), financial planning (Mitchell, 1988; Brinckmann, Salomo & Gemuenden, 2011; Liao & Gartner, 2006; Gorton, 1999) and strategic planning (Miller & Cardinal, 1994; Rudd, Greenley, Beatson & Lings, 2008; Nordqvist & Melin, 2008; Untiedt, Nippa & Pidun, 2013; Nichol, 1992; Reid, Brown, McNerney & Perri, 2014).

Usually, the first thing entrepreneurs address is a formulation of a business plan. The business plan tends to include ideas of business and a plan to suffice the need for financing. In addition, business plan includes outlined strategy of the new venture alongside all related data, for example, revenue projections and cost estimations. All in all, holistic business plan provides a source of information for the entrepreneur as well as for the stakeholders and investors alike. (Becherer & Helms, 2009.)

It is a common assumption that business plan in itself is related to performance of the new venture (Becherer & Helms, 2009; Brinckmann, Grichnik & Kapsa, 2010). However, there are previous research conducted on the formulating of the business plan. On general level, Becherer & Helms (2009) researched small to midsized start-ups and according to the results, formulating business plan does have a relationship in the success of the company.

It matters how the business planning is conducted in a company. According to the prior literature, formal planning process, participation of related managers and thoroughness of business planning does imply better performance of the company. (Phillips, 2004.) Moreover, the knowledge base and skills of the management of the company also play a role in the success of the business planning. Management persons with previous experience in the start-ups tend to have better planning skills (Kim et al., 2006).

The timing of the business planning is significant to the company as well. Liao and Gartner (2006) research imply that companies suffering from uncertainty should plan earlier to be more successful. Similarly, companies that conduct business in relatively certain environment don't have to progress with business planning early to be successful.

Financial planning refers to planning of profitability driven by, for example, costs, revenues and volume of the business. This planning is usually conducted by the management of the company. In addition, financial planning can be considered a lightweight management control system. Financial planning has many purposes varying from management decision making and evaluation to finding and creating competitive advantage and to suffice external parties requirements. (Gorton, 1999.)

The relationship between performance of the company and usage of financial planning does have mixed results in prior literature. For example, Mitchell (1988) presents that successful start-ups do use financial planning. In fact, the results of the research indicate that companies basing financial planning on non-financial plans and integrating the financial planning into the strategy of the company are more successful.

However, there are contrary literary findings as well. According to Brinckmann et al. (2011) findings, financial planning can be a waste of time in the start-up phase. Conducting financial planning activities do take away management time from value creating activities. Moreover, their study results indicate that financial planning and control do not significantly affect growth of the company.

Strategic planning refers to planning process where company management explicitly plan for future scenarios thus figuring out what should be done to reach the desired outcome in the end. Strategy reflects the management's view at a certain point in time and should consider all possible business outcomes on the related timespan.

Strategic planning has been thoroughly researched topic in the field of business management. For example, the effect of strategic planning on performance (Miller & Cardinal, 1994; Olson & Bokor, 1995; Untiedt et al., 2013; Reid et al., 2014), flexibility in the strategic planning (Rudd et al., 2008), participation in strategic planning (Nichol, 1992) and performance of strategic planners (Nordqvist & Melin, 2008) provide more insight on the strategic planning.

Even though there has been criticism on the strategic planning due it's rigidness and lack of innovation, prior research findings indicate that the use of strategic planning significantly affect the performance of the company (Miller & Cardinal, 1994). In fact, if strategic planning in its formal mode takes innovation into consideration, the performance of the company seems to be positively affected (Olson & Bokor, 1995). Similarly, the effect of strategic planning to performance is mediated by operational, financial, structural and technological flexibility (Rudd et al., 2008).

Additionally, Untiedt et al. (2013) research results support the fact the strategic planning drives performance of the company. Their research suggest that not only using strategic planning , but frequency of the use of the strategic planning and the rigorous style of strategic planning imply significant positive relationship to company performance.

The effect of strategic planning to company performance seems to be similar across different fields of business and the stages of the company life cycle. Olson and Bokor

(1995) showed evidence on the small and rapidly growing companies and Miller & Cardinal (1994) research results indicated that strategic planning affects performance regardless of the company size or the intensiveness of capital and labour in the company. However, Fitzpatrick, Hunt and Adams (1999) research showed evidence that companies involved with more capital or companies taking up more capital tend to apply strategic planning more than others.

It is notable, that Miller & Cardinal (1994) results imply, that small and labour intensive firms may benefit more from adapting strategic planning than large and capital intensive companies. Reid et al. (2014) studied non-profit companies and strategic planning and find out that strategic planning do have a significant effect on the overall success of the non-profit organization.

However, the success of the strategic planning depends on the flexibility of the plan. Rudd et al. (2008) research results indicate that flexibility in operational and financial level affect significantly the financial performance of the company. Additionally, flexibility in technology and structure affect significantly the non-financial performance of the company. In other words, if the strategy considers the possibility to conduct changes in the said areas, the actual strategy becomes inherently more effective.

From the participation point of view, it is important for company to include the middle management in the strategic planning. This way company makes sure the strategy implementation is more efficient. In fact, if the management of the company manages to align the strategy plan with the activities of middle management, the middle management is able to see the benefit of the strategy more clearly and they become more active advocating and implementing strategy. (Nichol, 1992.)

Conducting strategic planning is not simple and practitioner has to take into account many factors. Nordqvist and Melin (2008) present four different essential characteristics of a practitioner of strategic planning for planner to be successful. First, a planner has to be socially skilful and be able to give attention to all parties involved in the strategic planning. Second, a planner has to be able to interpret different practices and routines of the company to derive conclusions. Third, a planner has to be able to keep the necessary distance to all parties involved to remain unbiased. Additionally, keeping formality and interests of all parties in balance in the strategic planning is vital. Fourth, planner has to able to conduct internal and external analyses, master strategic planning processes and educate other in using the planning models and interpreting the results.

Finally, previous literature suggests that companies applying performance review on their operations should have an effective system of planning in place. An effective system of planning should take into consideration an analysis of opportunities and the development of objectives. It is considered effective business management to include planning in the performance review to connect the past performance to future goals. (Berry, 1979.)

When reflecting planning to the framework provided by Lebas (1995), the limitations of planning as a management control system can be presented. Planning reflects mainly to the fourth dimension of the Lebas framework. Planning is a solution for management trying to figure out how to get to certain set goal. In addition, planning do reflect to the third dimension of the framework as well. Via planning, company management is able to understand the goals of the company. Conclusively, company management conducting planning should know what are the goals of the company and how they pursue these goals.

Table 4. SLR report of the Planning

Author	Year	Title	Input to the study
Mitchell	1988	A growth strategy for start-up business	Financial planning
Fitzpatrick et al.	1999	Financial and planning implications for small business entrepreneurship	Startups and planning
Brinckmann et al.	2011	Financial management competence of founding teams and growth of new technology-based firms	Planning, value creation and growth
Brinckmann et al.	2010	Should entrepreneurs plan or just storm the castle? A meta-analysis on contextual factors impacting the business planning-performance relationship in small firms	Business planning

Liao & Gartner	2006	The effects of pre-venture plan timing and perceived environmental uncertainty on the persistence of emerging firms	Financial planning in startups
Gorton	1999	Use of financial management techniques in the U.K.--based small and medium sized enterprises: Empirical research findings	Financial planning in startups
Olson & Bokor	1995	Strategy process-content interaction: Effects on growth performance in small, start-up firms	Planning in startups and growth firms
Kim et al.	2006	Access (not) denied: The impact of financial, human, and cultural capital on entrepreneurial entryin the United States	Business planning
Becherer & Helms	2009	The value of business plans for new ventures: Company and entrepreneur outcomes	Business planning
Miller & Cardinal	1994	Strategic planning and firm performance: A synthesis of more	Strategic planning
Phillips	2004	E-business planning and accountants: the balance with performance	Business planning
Rudd et al.	2008	Strategic planning and performance: Extending the debate	Strategic planning
Nordqvist & Melin	2008	Strategic planning champions: social craftspersons, artful interpreters and known strangers	Strategic planners in practice
Berry	1979	Performance review: Key to effective planning	Performance review and planning
Untiedt et al.	2013	Application matters: how different corporate portfolio management practices impact firm performance	Strategic planning
Nichol	1992	Get middle managers involved in the planning process	Strategic planning
Reid et al.	2014	Time to raise the bar on nonprofit strategic planning and impementation	Strategic planning

3.2 Popular management accounting methods

The field of management accounting is broad and includes many kinds of practices which all can be useful in a specific context. Marc Epstein and John Lee have published a serial book of "Advances in Management Accounting" (2016) for 23 volumes. Only in these 23 volumes of management accounting studies, there has been introduced, researched and discussed a multitude of different performance measurement technics.

In his book, Neely (2002) discusses the performance measurement and indicates that the current management account practices to be evolving constantly. According to Neely, the whole genre of business performance measurement is a reasonably new topic at the field of businesses and many new technics have been introduced to public. In his book "*Business Performance Measurement: Theory and Practice*" (2002) he introduces and explains multitude of performance measurement processes himself and via colleague author articles.

As mentioned earlier, management accounting as a field of study includes many different possible doctrines and ways of thinking which can be useful in a certain situation for a certain company. Neely's (2002) goal is to provide performance measurement technics and methods from the point of view of functionality for the use of scholars and practitioners. By functionality, Neely reflects management accounting from the useful perspective. In other words, he keeps the introduced and discussed methods on a theoretical level, which still enables the usage and practice in real life situations.

Neely (2002) don't necessarily argue any importance or effectiveness of different performance measurement systems but highlights the most popular few. According to him, Activity Based Costing (ABC), shareholder value, Balanced Scorecard, Business Excellence model, quality accounting, Economic Value Added (EVA), relative comparation, Benchmarking, non-financial metrics and operation cost accounting over traditional accounting.

To figure out the most used technics for management performance measurement, the research of Guffey (2014) is cited as well as the aforementioned Neely (2002) literature. In his study, Guffey analysed 20 volumes of "Advances in Management Accounting" from Epstein and Lee and performed a citation study to figure out the most popular studies from the serial.

Based on Guffey's (2014) research results, we can assume the following performance measurement practices to be of popularity. Popular management accounting related performance measurement practices are Economic Value Added (EVA), Balanced

Scorecard, Activity Based Costing (ABC), Budgeting, Traditional Cost accounting and relative measurement.

Table 5. Top ten most cited researches by Guffey's (2014) study

Article	Total Citations	Citations Per Year
"The Drivers of Customer and Corporate Profitability: Modeling, Measuring and Managing the Casual Relationships" by Marc J. Epstein, Piyush Kumar, and Alan Reinstein	47	3.36
"EVA® Financia Systems: Management Perspectives" by James S. Wallace	45	2.81
"Performance Measurement and the Use of Balanced Scorecard in Canadian Hospitals" by Y.C. Lillian Chan and Harry Davis	36	2.57
"Strategic Goals and Objectives and the Design of Strategic Manageent Accounting Systems" by Richard J. Palmer	34	1.55
"Activity-Based Costing in U.S. and Dutch Food Companies" by Tom L. C. M. Groot	33	2.20
"Control System Effects on Budget Slack" by Leslie Kren	27	1.29
"Management Information and Accounting information: What Do Managers Want?" by Sharon M. McKinnon (Bruns) and William J. Bruns, Jr.	25	1.14
"What 'Drives' Cost? A Strategic Cost Management Perspective" by John K. Shank and Vijay Govindarajan	19	0.90
"Factors Affecting Allocation of Noncontrollable Costs for Performance Evaluation Use: A Survey" by Yusuf Joseph Ugras	19	0.70
"Antecedents of Budgetary Participation: The Effects of Organizational Situational, and Individual Factors"by Douglas B. Clinton	18	1.20

Based on to the earlier literature, it is assumable that Economic Value Added (EVA), Balanced Scorecard, Activity Based Costing (ABC) and Benchmarking are among the most popular performance measurement practices applied by companies worldwide. This study doesn't conclude the fact that all other performance measurement technics are unpopular. For the limits of research, this study will continue the analysis of measurement technics with EVA, Balanced Scorecard, ABC and Benchmarking.

3.2.1 Economic Value Added (EVA)

According to the prior literature, the Economic Value Added has been the most used performance measurement indicator in US for the recent years. Originally introduced to public and heavily marketed as superior accounting measure for company value by Stern Stewart and company. (Canil & Rosser, 2001; Griffith, 2004; Sparling & Turvey, 2003). In addition to practical use, many academic researchers have used EVA as a performance measurement proxy in their research (Pham, Suchard & Zein, 2011).

On the fundamental level the EVA can be described by the following formula (Griffith, 2004).

$$EVA = NOPAT - Capital\ Charge \tag{1}$$

Where, NOPAT = Net Operating Profit After Taxes

The EVA has been initially derived from the residual income model (Canil & Rosser, 2001; Peasnell, 1982; Stancu, Obrejabraşoveanu, Ciobanu & Stancu, 2017; Dechow et al., 1999).

Basically, the concept behind EVA is that an entity has to generate more profits than the cost from employing capital incurs to drive value creation. The most usual ways to calculate capital charge are weighted average cost of capital (WACC) and Capital Asset Pricing Model (CAPM). In theory, EVA is positive when the estimated project or the business gains are bigger than the cost of capital. Continuing the theory, when undertaking and eventually completing these projects and operations, the company value increases. In other words, the shareholder value id est the stock price should increase. (Sparling & Turvey, 2003.)

Originally, EVA's purpose was the assessment of a current project and not necessarily the forecasting of a project. This means that EVA showcases the value-adding activities of a project to the company management and helps the management the control the investments and essentially it acts as a tool for decision-making. (Canil & Rosser, 2001.)

In addition to assessment of a project, the EVA's main use is to measure the wealth creation especially from the point of view of the shareholder (Bacidore, Boquist, Milbourn & Thakor, 1997). In other words, EVA can be used as an indicator of value creation, but as a valuation tool it is not necessarily applicable. Ideally, EVA should correlate with the company specific value creation in regards to the share price. (Bacidore et al., 1997.) It is notable, though, that EVA's of different companies can be compared, but the relativity of the EVA's is disputable. If there is no significant relation between compared companies, the results of the relative study are questionable (Lerner & Willinge, 2002).

The requirement for using EVA as a tool for management is accurate estimation. As it is commonly known, accounting data as such doesn't fully explain the current situation of a company. Instead management has to introduce adjustments to book values to reflect the actual value of the company. In the most cases, the data is not available and management and directors have to adjust book values according to the best estimates based on their own analysis. This means that EVA itself may not be able to truly express company value in practice if managements view for adjustments are not reflecting the future performance well. (Sparling & Turvey, 2003.)

Furthermore, Bacidore et al. (1997) introduced a term "Refined economic value added" (REVA). Where the capital cost is based on the market value cost of the company. According to their empirical study results, book value based EVA calculation do correlate with the shareholder value creation but REVA correlates better. In a special case, where the book value matches with the market value, the EVA and REVA are naturally as good of options for measurement. This is in line with earlier paragraph discussion about the management adjustments to book value of the assets the cost is calculated for. (Sparling & Turvey, 2003.)

The nature of the scope of EVA is basically short term (Johnson & Soenen, 2003). This is due to the fact that EVA applies historical information with possible adjustments set by management via accruals (Sparling & Turvey, 2003). In fact, Mouritsen (1998) argues that EVA represents historical evaluation of the company's performance. Thus, drawing any conclusions related to corporate strategy is useless.

In a sense, the strategical value of the EVA is zero when considering future of the company.

On the contrary to the above, Russ (2001) suggests that managers are able to benefit from the use of EVA in the future decision making. Managers of the companies' are able to use EVA to evaluate what activities of a company are the most able to create value for the company. After concluding the value creation activities, managers are able to invest in these value creating activities instead of other not as well value creating activities. In a way, managers would be using EVA as a decision making tool to allocate focus on productive operations of the company.

There's been previous studies related to EVA and the effect of utilizing EVA in the company performance measurement. According to Griffith (2004) and Sparling and Turvey (2003) studies, the prior research results are mainly unified. Some reports indicate that companies undertaken EVA in their performance measurement outperform the market and their competitors. These outperforming reports of EVA against other measures is driven by consulting firm Stern Stewart and Company. (Sparling & Turvey, 2003; Griffith, 2004.)

Even though the most of the studies' results seem to be unified, there are some mixed results as well. For example, Lehn and Makhija (1996) study results indicate that EVA does have a significant relationship with the stock performance. Thus, EVA should be considered as well working measure for company performance. However, Cordeiro and Kent (2001) research provides contrary results. Cordeiro and Kent's results show evidence that there is no significant relationship between EVA and EPS. This indicates that EVA is not working properly as a performance indicator. It is notable, that the stock performance is not the same as the earnings per share even if they essentially represent company performance.

There are also other studies that suggest using or adopting EVA results in better performance when compared to the peer companies or companies not using or adopting EVA. For example, Johnson and Soenen (2003) showed that large and profitable companies, companies enjoying efficient working capital management and companies with unique characteristics tend to perform better if they used EVA as a performance measurement tool.

Similarly, Gupta & Sikarwar (2016) show evidence that EVA is a better management accounting performance measure than traditional management accounting methods. Not only, being a better measure, the adopting of EVA is also documented to increase profitability of the company (Ferguson, Rentzler & Yu, 2005).

However, there are multiple studies conducted which show contrary results to Stern Stewart and Co reports and other positive researches provided above. Only Griffith (2004) cited 17 different studies indicating that the use of EVA as a performance measure doesn't improve the company performance in proportion to market and competitors. In his own study, Griffith, found out that companies that have actually adopted the EVA have not performed well against the market or competitors not using EVA.

Sparling and Turvey (2013) researched the competitiveness of EVA against other accounting-based performance measures. Their results indicate the same as Griffiths (2004). According to the results, it seems that using EVA did not correlate with growth in shareholder values.

Finally, the impact on performance when using EVA varies in relation to the situation or characteristics of the company. Like mentioned earlier, large, profitable and efficiently working capital managing companies tend to enjoy better results from using EVA (Johnson & Soenen, 2003). Similarly, the usability depends on the accounting information available in a company. Companies applying only traditional accounting information in their systems are not able to get the best use of EVA. The more information is available, the more useful EVA is. (Alam & Nizamuddin, 2013.)

When reflecting EVA in Lebas' (1995) framework, it is relatively clear which dimension are considered in using EVA. According to previous literature findings presented earlier, EVA's main measurement dimension is the past performance of the company. In Lebas' framework, the past performance is the first dimension. Simirlarly, previous literary findings support the fact that EVA does not consider the future basically at all. This means that the last three dimensions of Lebas' framework are disregarded by EVA. The second dimension, the measurement of current situation of the company is questionable and previous literature does not give a clear answer on does EVA consider the current situation of the company well.

Table 6. SLR report of the Economic Value Added model

Author	Year	Title	Input to the study
Canil & Rosser	2001	All about EVA and financial analysis	Popularity, definition and use of EVA
Griffith	2004	The true value of EVA®.	Popularity, definition and use of EVA
Sparling & Turvey	2003	Further thoughts on the relationship between economic value added and stock market performance	Popularity, definition and use of EVA
Peasnell	1982	Some formal connections between economic values and yields and accounting numbers	Definition of EVA
Stancu et al.	2017	Are company valuation models the same? - a comparative analysis between the discounted cash flows (dcf), the adjusted net asset, value and price multiples, the market value added (mva) and the residual income (ri) models	Definition of EVA
Bacidore et al.	1997	The search for the best financial performance measure	EVA's suitability and comparability, Refined Economic Value Added (REVA)
Dechow et al.	1999	An empirical assessment of the Residual Income valuation model	Definition of EVA
Lerner & Willinge	2002	A note on valuation in private equity settings.	Comparability of the management accounting methods
Johnson & Soenen	2003	Indicators of successful companies	Definition and profitability of EVA
Russ	2001	Economic Value Added: Theory, evidence, a missing link	EVA use case
Pham et al.	2011	Corporate governance and alternative performance measures: Evidence from Australian firms	Academic popularity of EVA
Cordeiro & Kent	2001	Do EVA(TM) adopters outperform their industry peers? Evidence from security analyst earnings forecasts	Suitability of EVA as a performance measurement metric

Alam & Nizamuddin	2013	Performance measures of shareholders wealth: An application of Economic Value Added (EVA)	Usability of EVA
Gupta & Sikarwar	2016	Value creation of EVA and traditional accounting measures: Indian evidence	Suitability of EVA
Ferguson et al.	2005	Does Economic Value Added (EVA) improve stock performance profitability?	Performance of EVA
Mouritsen	1998	Driving growth: Economic Value Added versus intellectual capital	Definition of EVA
Lehn & Makhija	1996	EVA & MVA: As performance measures and signals for strategic change	Suitability of EVA

3.2.2 Balanced Scorecard

The Balanced Scorecard (BSC) was first introduced to the public by Kaplan and Norton (1992) in their study. BSC includes multiple measures of a company that management can use in the decision-making processes. Initially, BSC includes different dimension which all affect in a certain way to the management decision-making. Initially, these dimensions are financial measures, customer measures, internal procedures measures and innovation and growth. These dimensions are further linked together via causally relative, balanced and strategy driven measures. (Kaplan & Norton, 1992; Kaplan & Norton, 1996; Soderberg, Kalagnanam, Sheehan & Vaidyanathan, 2011.)

Prior research shows concern on the linkage between management strategic decision making and financial evaluation of the management. This means that the strategic planning of management does not necessarily include financial analysis. This ends up management failing to do the best possible strategic decisions. (Myers, 1984.)

The financial dimension or perspective includes the traditional financial measures. When using BSC, the management has to take into consideration not only the financial measure, but the effect of the financial measure and causality of the financial measure. With BSC, management is able to verify the traditional financial measures in a relation to other perspectives. For example, if internal processes are developed as planned, but financial measures lack in regards to internal performance, the internal processes development plan should be revisited. (Kaplan & Norton, 1992.)

The customer point of view includes the measures of customer satisfaction that usually is categorized to four different categories. These are quality of the product or service, time took for satisfying the customer, performance of the company service or products for the customers and service's ability to create value for the customer. Management should assess the performance of the company in these fields of customer perspective on timely manner and try to make proceeds in the all necessary fields to remain successful. (Kaplan & Norton, 1992.)

Internal business operations perspective includes the operational performance measurement of the company. In other words, the internal perspective includes different measures of corporate internal business procedures. To be successful, management has to assess internal operations and measure the performance of different procedures. In addition to measurement, management has to be able to perform deductions from the data available and understand the causality and effect of the signals. (Kaplan & Norton, 1992.)

Innovation and learning perspective includes the measures that reflect the company's future value creation ability. Continuous development and measurement of the development processes keeps the company competitive. In the nowadays business, continual development is the key requirement of the markets and management has to be on top of the innovation and growth progress and adapt if current actions have proven unsuccessful. Via BSC the management is able to review innovativeness and growth and reflect it against other three dimensions to figure out company's way forward. (Kaplan & Norton, 1992.)

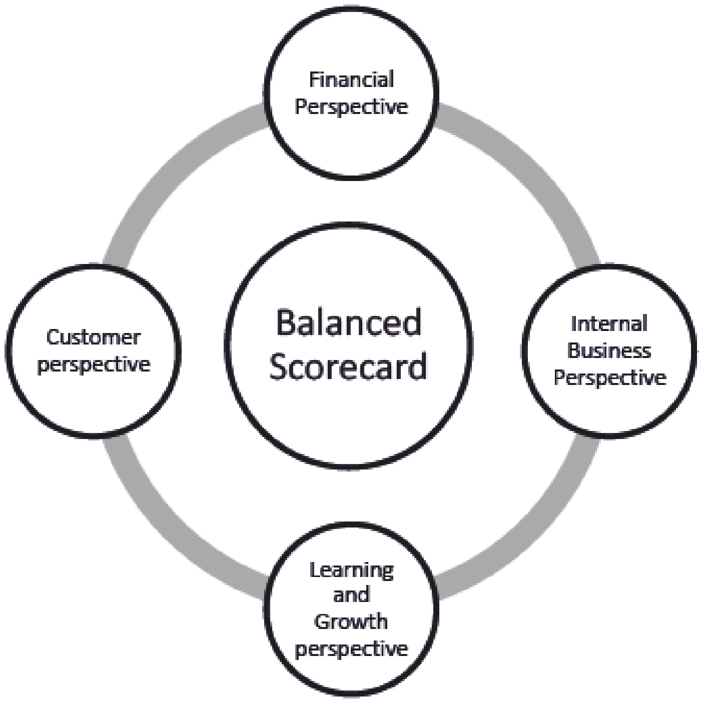

Figure 2. The simplified Balanced Scorecard (BSC) (adapted from Kaplan & Norton, 1992).

Idea behind deriving BSC is the need for easy, agile and fast to use, measurement system, which management may use without being burdened by excess information. With BSC, management can quickly make assessment of a company or project situation and proceed with decision making more easily than perceiving multiple sources of unrelated or unproportioned information. (Kaplan & Norton, 1992.)

Additionally, BSC includes all the necessary data for decision making and it allows management to easily assess the results of the different actions to different dimension. In other words, management can assess if some results can be achieved but require expense from other dimension. (Kaplan & Norton, 1992.)

Initially as a tool for management decision-making processes, the BSC true value lies in the strategic management control system. This means that balanced scorecard works best when used in strategical decision making in contrary to project level decision making. As BSC makes it possible for management to assess the causality and effects of different business operations to others, management can learn from the BSC. This is called “Strategic learning”. (Kaplan & Norton, 1996.)

In practice, when using BSC, strategic learning applies the use of hypotheses and performance measurement of the hypotheses and evaluation and comparation to earlier hypotheses to see the difference. Moreover, learning from the past accompanied with the knowledge of causality factors enables the management to be efficient. (Kaplan & Norton, 1996.)

As mentioned earlier, Kaplan & Norton (1996) have emphasized the meaning of causality in linking dimension and strategy. However, the causality is criticized and misused practically. Norreklit (2000) presents in her study that links between measures in BSC being understood as causal are actually more of a logical in nature and lack causality in effect. Similarly, in the actual practice, companies using BSC haven’t completely understood the causality (Malmi, 2001).

There’s been prior studies that indicate the BSC to be the one of the most popular performance measurement system. In addition, prior research has shown little criticism. Soderberg et al. (2011) researches the BSC systems that are actually in place, to see if they are properly implemented and the possible effects of problems in implementation. In addition, Andon, Baxter and Mahama (2005) present that in practice BSC can be problematic and too diverse. According to their study, successful implementation of BSC will include experimentation and heavily emphasizing on perspectives, measures and causal linkages.

BSC can be used as a performance measurement tool for the managers of a company. According to Gautreau and Kleiner (2001), if management focuses on a few key measures that are controllable by affected managers and keep open communication line with said managers, the use of BSC will encourage managers to perform actions that are aligned with company strategy. Ittner, Larcker and Meyer (2003) studied the use of BSC in bonus schemes. Their results indicate that subjectivity in the use of BSC measures will lead to unfavourable outcomes. In fact, subjectivity of higher management does lead eventually to unsatisfied managers. For BSC to be used correctly, managers need to understand the concept, commit to the using of BSC and support it inherently (Chavan, 2009).

Involvement plays key part in BSC. More involved the senior management is in the BSC implementation, less there are inappropriate measures (Soderberg et al., 2011). Libby, Salterio and Webb (2004) research involvement of managers and 3rd party attestation in the BSC implementation and review. Their findings indicate that managers tend to use mainly common measures even though company unique measures are important to include in BSC. These findings are supported by Banker, Chang and Pizzini (2004). If managers are required to justify their decisions and if 3rd party is used in reviewing BSC, managers significantly more apply unique measures in BSC (Libby et al., 2004).

It seems that companies tend to have mixed forms of BSC in place (Soderberg et al., 2011). Chavan (2009) suggests that companies should actually let the BSC evolve continuously alongside the development of the company to be effective. In fact, study results show evidence that BSC systems in different companies working in similar field might have completely different kinds of BSC but both are as efficient tools.

Only one fourth of the companies had implemented the BSC in the fullest, four-dimensional level with links to causality and strategic planning. (Soderberg et al., 2011.) Moreover, there's evidence that companies do use BSC in practice differently as the theory originally suggest. Malmi (2001) studied Finnish companies and according to the results of the study, companies used BSC in a role of information system and objective management system instead of complete BSC system.

The importance of linking strategy into BSC measures is highly emphasized by previous literature. Linking BSC and strategy leads into better communication throughout company and higher levels of motivation which inherently drive performance of the company (Sharma, 2009). Banker et al. (2004) research showed evidence that BSC performance evaluators tend to give more emphasis on strategic measures.

From the point of view of the performance, prior literature seems to indicate BSC is a well performing management accounting system. There are multiple previous studies that suggest the efficacy of BSC. Soderberg et al. (2011) research results indicate that there is some correlation between higher returns with companies applying BSC than companies not using BSC. Similarly, Hoque and James (2000) suggests that BSC is associated with improved performance, especially in large companies. According to Davis and Albright (2004) companies using BSC perform better.

de Geuser, Mooraj and Oyon (2009) researched the impact of BSC and the drivers behind the impact. Their research indicate that BSC impacts performance, improves integration of management processes and overall empowers people in the company. The drivers behind the performance are the ability of translating strategy into operational activities, establish foundation on continuous strategizing and enabling greater organizational alignment with the strategy of the company.

Even though the literature suggests that using BSC improves company performance, there are studies that beg to differ. For example, a recent study performed by Dan (2017) implies that companies using BSC don’t necessarily outperform companies not using BSC. However, study results conclude that the reason behind this finding could be the fact that companies not using BSC do plan and follow similar measures as BSC would but by unorderly manner, which leads into similar performance as companies applying BSC in practice.

Finally, Jabeen and Behery (2017) research findings sum up the previous literature discussion quite well. According to them, BSC represents the company performance well. Their results indicate that BSC can be considered as a good management control practice.

When considering Lebas (1995) dimensions to the BSC, it’s relatively clear that BSC does relate to multiple dimensions. The measures that are followed by management do reflect the current and past performance of the company, depending on the measure. For example, recent customer satisfaction questionnaire results represent current situation and last quarterly sales numbers reflect past performance.

However, BSC emphasizes the most on Lebas (1995) third and fourth dimensions. Future goals, where to company should aim for, and future plan, how the company should get to the goals, represent the company strategy inherently. As BSC is a heavily strategy linked management accounting system, it's clear these dimensions are the most considered by BSC. The fifth dimension of the Lebas framework, the reaching of goals and how the system can assess when the pre-set goals are reached, is also related to BSC. However, this is arguable and possible only if companies using BSC apply BSC on continuous basis.

Table 7. SLR report of the Balanced Scorecard

Author	Year	Title	Input to the study
Kaplan & Norton	1992	The balanced scorecard--measures that drive performance	Definition and characteristics of BSC
Kaplan & Norton	1996	Strategic learning & the balanced scorecard	Definition of BSC, Strategic learning principle
Soderberg et al.	2011	When is a balanced scorecard a balanced scorecard?	Definition of BSC, higher returns if BSC is used, BSC multilayered in practice
Myers	1984	Finance theory and financial strategy	Link between strategic decision making and financial evaluation
Ittner et al.	2003	Subjectivity and the weighting of performance measures: Evidence from a balanced scorecard	BSC in practice
Gautreau & Kleiner	2001	Recent trends in performance measurement systems - the balanced scorecard approach	BSC in practice
Dan	2017	An empirical study on Balanced Scorecard as a measurement and management tool for corporate performance	Performance of BSC
Andon et al.	2005	The Balanced Scorecard: Slogans, seduction, and state of play	BSC in practice
Jabeen & Behery	2017	Exploring the status and effects of balanced scorecard adoption in the non-western context	BSC and performance
Sharma	2009	Implementing Balance Scorecard for performance measurement	BSC in practice
Chavan	2009	The balanced scorecard: a new challenge	BSC in practice

Libby et al.	2004	The Balanced Scorecard: The Effects of Assurance and Process Accountability on Managerial Judgment	BSC in practice
Norreklit	2000	The balance on the balanced scorecard - A critical analysis of some of its assumptions	BSC definition & characteristics
Banker et al.	2004	The Balanced Scorecard: Judgmental effects of performance measures linked to strategy	Performance of BSC
Malmi	2001	Balanced scorecards in Finnish companies: a research note	Characteristics of BSC and BSC in practice
de Geuser et al.	2009	Does the balanced scorecard add value? Empirical evidence on its effect on performance	Performance of BSC
Davis & Albright	2004	An investigation of the effect of Balanced Scorecard implementation on financial performance	Performance of BSC
Hoque & James	2000	Linking balanced scorecard measures to size and market factors: Impact on organizational performance	Performance of BSC

3.2.3 Activity Based Costing (ABC)

Activity Based Costing is a developed form of traditional cost accounting. ABC is a method of costing, where costing is conducted by estimating the cost of resources used in a company operational process to produce outputs. In traditional cost accounting, costs are calculated based on suitable metric. For example, cost of a unit of a product. In ABC, costing is developed further and costs are allocated based on activities. Via ABC, managers are able to link costs of business processes to the final products or services and in the end to the customer. (Cooper & Kaplan, 1992.)

Moreover, the theory behind the ABC is divided into two profound facts. First, the demand for resources used in operational business activities in a company are not driven by the overall number of sales or products produced. The resources used in activities are driven by diversity and intricate product selection and customer range. (Cooper & Kaplan, 1992.)

The second, ABC systems and the results don't reflect the current costs of the operations in a short-term. The ABC aims to estimate the costs of the used resources to perform the operational business activities. The key here is to understand that the ABC estimates the cost of resources. With the results, management is able to forecast the future need of for actions and plan for the future resources usage. (Cooper & Kaplan, 1992.)

On a fundamental level the ABC in practice can be divided into two parts. First, allocation of costs to activity. Second, the activity costs are linked to product or end service. In practice, the usual ABC process includes five stages. First, the activity in question is analysed. Second, after defining the activity, costs that effect the activity are allocated. Third, the measurement of costs allocated to activity is performed. Fourth, the output of the activity is defined, as if there is no output, the activity is not completed yet. Finally, the cost is reflected to the output and analysed. (Chouhan, 2009.)

Further on the practical adoption of ABC, prior studies have shown that companies' ABC systems are quite different from each other. In other words, the concept of ABC is vague for the companies in practice and the utilization varies. In addition to aforementioned, prior research has shown evidence that even researchers don't agree on the practical concept of an ABC system. It is under question, when the accounting system of a company evolves into the ABC systems. (Malmi, 1999.)

Prior literature has shown evidence that company characteristics play a role in adopting and using ABC as a management accounting system. According to Kallunki and Silvola (2008) mature and overall later stage companies tend to use ABC more than early and growth stage companies. This is supported by multiple scientific studies. For example, Innes and Mitchell (1995) and Innes, Mitchell and Sinclair (2000) studies show consistent evidence that small companies tend to adopt ABC significantly less than larger companies. Moreover, prior literature indicates that overall larger companies have significantly more knowledge about ABC (Bjornesak, 1997).

Regarding the above mentioned, there is some contradiction in the previous literature. For example, Baird, Harrison and Reeve (2004) research showed evidence that the size of the firm doesn't affect the using of ABC as a management accounting method. However, their results indicate that the decision usefulness drives the adoption of

ABC. Companies with distortion in costing, mindset of focusing on performance and efficiency and tighter overall controls tend to use ABC more often.

Kaplan (2006) summarizes the companies need for ABC systems with following topics. Due to the large-scale changes in the general economics, companies cost accounting needed to adapt as well. Shift from single product and narrow customer base business to global, multi-customer and multi-product company made the traditional costing problematic. As complexity of business grows, the companies need more insightful costing methods to understand costs and their nature.

However, adoption of ABC in practice can encounter resistance. Malmi (1997) studied the possible factors driving resistance in adopting ABC. The results indicate that the resistance related to adopting ABC is structural in the most cases. The resistance emerges from the costs and benefits debate, clashes with organizational power and policy and from the organizational culture.

As ABC is a management accounting tool for the company management decision-making, it is important to understand the nature of the results properly. Kaplan and Cooper (2000) divide the ABC costs into two categories, value-added and non-value-added. This categorization is inherently determined with some costs of activities driving the value in the company and some costs of activities not driving value creation. Based on the analysis, the management can determine which activities drive value creation and which don't drive value creation.

ABC as such is mainly a tool for a company management (Cooper & Kaplan, 1992). This means that comparing results or systems to external factors or reflecting them to other factors outside the operational business is gratuitous. However, there are some exceptions to this.

McNair, Polutnik and Silvi (2001) researched a model, where costs would be linked to the market value of a company. The model was based on ABC with some additions. They studied the linkage between the market value and costs of a company from the customer point of view. Most notably, they found out that even though company ABC results proved to be value adding but customer satisfaction was lacking, the company market value didn't correlate with value creation. This means that to be successful, a company needs to have own processes and value creation in place and customer satisfaction at high rate. (Mcnair et al., 2001.)

Prior studies show evidence that undertaking management accounting processes like ABC provides early stage companies with strategical information for decision-making. This means that Activity Based Costing provides management with information on internal processes and thus provides guidance through the changes and scaling. Sometimes, the success of a company is depended on the ABC system in place. (Zeller, Kublank & Makris, 2001.)

The actual effects of applying ABC in company performance has been researched previously from multiple different perspectives with a mixture of results. For example, Cagwin and Bouwman (2002) research showed evidence that companies using ABC with strategic initiatives tend to enjoy improved ROI. Similarly, complex and diverse firms and companies focusing on cost management tend to enjoy improved ROI when using ABC.

Drake, Haka and Ravencroft (1999) research indicated that performance doesn't derive inherently from using ABC but is depended on motivation of users. Drake et al. (1999) results showed evidence that companies not incentivising enough didn't reach similar success in innovation, efficiency and profits than companies tying incentives in using ABC. Moreover, Shields (1995) research implies that success of ABC varies in regards to favour and support of top management and in regards to proper linkage to company's strategy, performance evaluation, compensation schemes and training of the employees using ABC.

On the contrary argument, according to the results of Ittner, Lanen and Larcker (2002), using ABC is not associated with better performance of the company. However, they study shows evidence that companies using ABC can achieve cost reductions. Similarly, Swenson (1995) research results indicate that using ABC leads in significant improvement in cost management. Additionally, Swenson (1995) argues that ABC provides important information for both strategic and operational decision making of the company management.

When reflecting the Lebas (1995) framework to the ABC, it's relatively clear the first dimension of the framework is the most associated with ABC. As ABC is fundamentally based on reported numeri the past performance is what ABC is all about. However, as mentioned earlier, ABC is not only a tool for reporting past performance but a tool for management analysis and decision making.

There are also some other dimensions associated with ABC. For example, the second dimension, current company performance, and fourth dimension, plan and planned actions to be executed in the future, is in a way associated with ABC. Continuous application of ABC will give management tools that show evidence on the current performance of the company. Similarly, management applying the information derived from ABC in their strategic decision making makes it possible to use ABC as a planning tool.

Table 8. SLR report of Activity Based Costing

Author	Year	Title	Input to the study
Cooper & Kaplan	1992	Activity-based systems: Measuring the costs of resource usage	Definition and comparability of ABC
Chouhan	2009	Activity based costing: A case study	Definition of ABC
Malmi	1999	Activity-based costing diffusion across organizations: An exploratory empirical analysis of finnish firms	Characteristics of ABC in practice
Kaplan	2006	The competitive advantage of management accounting	Popularity of ABC
Kaplan & Cooper	2000	Cost and effect: Using integrated cost systems to drive profitability and performance	Value-added and non-value-added costs
McNair et al.	2001	Cost management and value creation: The missing link	Relationship between ABC and market value
Zeller et al.	2001	How art.com uses ABC to succeed	ABC effect in early stage companies
Drake et al.	1999	Cost system and incentive structure effects on innovation, efficiency and profitability in teams	The performance of the ABC

Bjornesak	1997	Diffusion and accounting: The case of ABC in Norway	Companies awareness of ABC
Baird et al.	2004	Adoption of activity management practices: a note on the extent of adoption and the influence of organizational and cultural factors	The use and popularity of ABC
Kallunki & Silvola	2008	The effect of organizational life cycle stage on the use of activity-based costing	Popularity of ABC
Innes & Mitchell	1995	A survey of activity-based costing in the U.K.'s largest companies	The use of ABC in practice
Cagwin & Bouwman	2002	The association between activity-based costing and improvement in financial performance	Performance of ABC
Malmi	1997	Towards explaining activity-based costing failure: Accounting and control in a decentralized organization	ABC in practice, the resistance in practising ABC
Innes et al.	2000	Activity-based costing in the U.K.'s largest companies: A comparison of 1994 and 1999 survey results	The use of ABC in practice
Ittner et al.	2002	The association between activity-based costing and manufacturing performance	Performance of ABC
Shields	1995	An empirical analysis of firms' implementation experiences with activity-based costing	Performance of ABC
Swenson	1995	The benefits of activity-based cost management to the manufacturing industry	The practice and performance of ABC

3.2.4 Benchmarking

Benchmarking has been used as a measurement method for a long time. Earliest studies conducted from the 1940's show that Benchmarking has been around and studied from many perspectives (Moriarty 2011). In addition, benchmarking is considered popular amongst management accounting practices actually used by companies (Wai & Kuan, 2008). It has also evolved heavily from the beginnings from the practical point of view as well as academic point of view. Even with continual evolving, benchmarking as an application still needs researching. Previous research shows evidence on the lack of academic developments. (Yasin, 2002; Wai & Kuan, 2008.)

Fundamentally benchmarking means comparison of different activities, processes or projects to each other. The comparison is based on measurement of the different projects. The idea is that after comparison, the most efficient project is analysed and thus advantages are determined. After determining advantages, management is able to plan necessary actions to be taken to achieve the efficiency. (Graham & Holloway, 2007; Isoraite, 2004; Wai & Kuan, 2008.)

On a theoretical level, benchmarking is based on a couple of philosophical thoughts. First, the analyst or person using benchmarking has to know and understand the factors contributing to the process. For example, the nature of the analysed process, rules binding the process, statistical variation and overall terms of the process. (Moriarty, 2011; Isoraite, 2004.)

Second, the necessity of logic. To use benchmarking, management has to be able to understand the logic behind the business operations. Moreover, management has to be able to logically identify the other companies' processes that the own processes are compared to. This way benchmarking results are verifiable. (Moriarty, 2011.)

Third, management has to be able to see understand the nature of causality and identify the causality factors of the processes. Without understanding causality, management can make false deductions based on the results of benchmarking. All these aforementioned thoughts have to be present in management to perform benchmarking with applicable results. (Moriarty, 2011.)

Graham and Holloway (2007) researched the benchmarking practices currently in use. Typologically speaking, there are multitude of different kinds of benchmarking. According to the Graham and Holloway (2007), the most common way to divide benchmarking into practical categories is the Camp (1995) typology. Camp (1995) divides benchmarking into four categories, internal benchmarking, competitive benchmarking, functional benchmarking and generic benchmarking.

By internal benchmarking, company assesses own business activities and makes deductions based on the results. Competitive benchmarking means benchmarking analysis between company's own operations and direct competitors' business processes. Functional benchmarking includes benchmarking analysis where company's activities are compared to similar kind of processes of different companies regardless of industry. Generic benchmarking means comparison of company activities to other businesses operations that are assumedly better or more innovative so comparison would provide management with development ideas. (Camp, 1995; Graham & Holloway, 2007; Isoraite, 2004; Wai & Kuan, 2008).

Benchmarking as a practice has evolved over time to meet the businesses' needs. From the beginning, the benchmarking was focused on a single process or activity level. Currently, companies' have included also corporate strategies and whole systems. However, the development of benchmarking is still mainly without clear framework and there is no single theory uniting the wide use of benchmarking. As there are new business processes and ways to conduct business, the need for discussion between actual practitioners and academic research is needed to develop benchmarking theory. (Yasin, 2002.)

Schmidt (1992) researched the practice of benchmarking in companies. According to the research results, most companies employ three different forms of benchmarking in practice. These are strategic benchmarking, cost benchmarking and customer benchmarking. Strategic benchmarking is comparation of success of long term value creation from the perspective of shareholder. Cost benchmarking refers to cost efficiency of different processes and activities. Customer benchmarking refers to analysing customer dimension of the company's business.

Isoraite (2004) researched the benchmarking from the theoretical point of view. Her study results are seemingly aligned with other notable studies (Moriarty, 2011; Graham & Holloway, 2007; Camp, 1995). In addition to prior studies, Isoraite (2004) emphasizes the importance of continual benchmark measuring. According to the study, singular benchmarking process does not itself give insight to the processes. Continuous benchmarking allows management to assess corporate activities for a certain time-period and the results provided are more useful making short-term and mid- to long-term plans. (Isoraite, 2004.)

According to the prior literature findings, the popularity of benchmarking is understandable. For example, Goncharuk and Getman (2014) showed that using benchmarking is related to the success in business. Similarly, Goni, Tharia and Suryo

(2018) presented findings where using benchmarking was significantly positively correlating with success of the measured companies.

Moreover, Cassell, Nadin and Older Gray (2001) study showed evidence that companies applying benchmarking found it really effective performance measurement system. However, companies not using benchmarking tended to be uninterested in the benchmarking altogether. Finally, companies seem to be somewhat reluctant in using the benchmarking data but when they use it they find the results pleasing.

Reflecting benchmarking to the Lebas (1995) yields multiple dimensions that are related to the benchmarking. The first dimension, the past performance, is the most obvious dimension related to benchmarking. Like described earlier in this chapter, in theory, benchmarking is comparation analysis of different metrics and activities to other comparable metrics and activities. It is arguable that the most of the measured data is from past periods. Thus the first dimension is definitely associated with benchmarking.

The second dimension, the current situation of the company, is somewhat related to benchmarking and especially internal benchmarking of the company. It is arguable that for the external benchmarking targets data is not as well available as internal data. This way internal benchmarking can address the current situation of the company thus it is associated with the second dimension of Lebas (1995) framework.

The dimensions three, future goals of the company, and four, future plan of the company are arguably related to the benchmarking. In fact, if the situation is favourable, a company might be able to compare its goals and plan to relatable companies' goals and plans. However, this is obviously quite rare situation. Thus, the relation to benchmarking is weak at the best.

The fifth dimension, finding out how the pre-set goals were actually met, is fairly similar case as was the second dimension. Especially in the internal benchmarking, the fifth dimension can be related. For example, in analysing the different business unit goal achievement, higher management could use internal benchmarking process. Thus, fifth dimension of Lebas (1995) is applied.

Table 9. SLR report of Benchmarking

Author	Year	Title	Input to the study
Moriarty	2011	A theory of benchmarking	History and principles of Benchmarking
Yasin	2002	The theory and practice of benchmarking: Then and now	Shortages of Benchmarking research
Graham & Holloway	2007	What have we learned? themes from the literature on best-practice benchmarking	Theory and categories of benchmarking practices
Isoraite	2004	Theoretical aspects of benchmarking theory	Theory, principles, categories of benchmarking practices, continual Benchmarking
Camp	1995	Business process benchmarking: Finding and implementing best practices	Categories of Benchmarking practices
Schmidt	1992	The link between benchmarking and shareholder value	Benchmarking practices in use
Wai & Kuan	2008	A review on benchmarking of supply chain performance measures	Definition and practice of Benchmarking
Cassell et al.	2001	The use and effectiveness of benchmarking in SMEs	Performance of Benchmarking
Goncharuk & Getman	2014	Benchmarking to improve a strategy and marketing in pharmaceuticals	Performance of Benchmarking
Goni et al.	2018	An empirical study on relationships amongst success in benchmarking, success in Kaizen, people mindset and organizational dimensions	Performance of Benchmarking

3.3 The role of the management accounting in the start-up company

This thesis presents the characteristics of the start-up company and the actually used management accounting method and explores the popular management accounting methods used in companies in later stage of their life cycle. To enable comparison between management accounting practices, an analytical framework is presented and reflected to all management accounting methods. Next, the role of the management accounting methods in start-up setting is discussed based on the prior literature findings presented in earlier chapters.

The currently used management accounting systems are budgeting and planning. Considering the Lebas (1995) framework, budgeting is mainly associated with the past performance and goals of the company and planning with the future of the company. Moreover, both being a slightly more simple solutions to use and apply, they seem to be more attractive to start-up management. As start-ups are young, aiming for growth and smaller in size, the resources available for the management make it more easy to apply simple solutions instead of large scale operations like ABC or BSC, which in turn otherwise seem successful.

From the point of view of the analytical framework, the management accounting methods in use are both scoped relatively narrow way. Budgeting is basically used for allocating resources in relation to the goals of the company and following up on budgeting is basically analysis of past performance. Similarly, planning is completely aimed to future of the company. It is arguable, that the actual practices of management accounting methods indicate that the role of management accounting is relatively specific which makes sense. As start-up companies lack structure and managerial resources, the available resources should be used as well as possible thus going for simple but well targeted management accounting practices can lead to better performance.

Considering the popular management accounting methods, they are significantly different than actually used methods. EVA is the simplest and possibly the most narrow but precise method of management accounting performance measure. Being a formula and based on numerical data, EVA is completely associated with the data from the past. Similarly, ABC is based on past performance data. However, they seem to be not used by start-ups. Thus it's arguable that start-ups lack the resources to apply ABC and data to apply EVA.

Moreover, as the past data can vary heavily in the start-up setting, for example past earnings and volume of production, the use of both EVA and ABC might not be too useful. As usually large companies apply ABC and EVA is used in strict performance evaluation with link to past earnings, it is clear that the role of management accounting is significantly different in large and stabile companies than in start-up environment, even though they apply in same time dimension, the past.

Other two popular management accounting methods presented, BSC and benchmarking, are related to multiple Lebas (1995) dimensions. First, benchmarking is related to mainly the second and fifth dimensions with possible link to third and fourth dimensions. Similarly BSC can be considered to be associated with all framework dimension, but mostly it's associated with the third, the fourth and the fifth dimensions, the future dimensions.

However, both benchmarking and BSC require a specific situation to work properly. Benchmarking needs other companies or activities to benchmark in the first place. This is arguably the reason why start-up companies are not actively applying benchmarking. Like mentioned in the start-up characteristics chapter, start-ups are relatively unique companies. They tend to operate on new fields of business or they operate with unique business model which may not been previously used. In addition, start-ups lack resources and possibly knowledge about similar companies or activities by other companies operating in similar area. Nevertheless, if there are other players operating in the same business environment, their operations are likely to differ as start-ups usually operate in visionary ways and apply more risky activities, thus differentiating themselves from competition for various reasons from performance to increase financiers interest.

If there is a company or activity a start-up could benchmark to, for example via VC financier information network, benchmarking would be definitely beneficial for start-ups. When considering benchmarking and the role of management accounting, it is arguable that start-up companies interest is more self-centred than other stage companies. Moreover, the dimensions from past to current situation and plan for the future reflected by benchmarking are in a way achieved by budgeting and planning. Moreover, the focus with both planning and benchmarking is clearly more self-centred, requires less resources and data is more easily available. Thus, supporting earlier arguments, the role of the management accounting in start-up company is not to take up too much resources and provide self-depended information for managerial decision making.

BSC is arguably the most holistic management accounting method as it basically includes measures from all company business processes that are used in drawing conclusions and links to company performance and strategy. In a sense, the success behind BSC is the ability to connect the company activities to strategy. However, the prior literature shows evidence that companies have experienced challenges in implementing BSC properly. Considering Lebas (1995) framework, BSC is mostly associated with the future dimensions. However, it's notable that BSC is linked to past and current dimensions as well through applying certain measures drawn from past and current data.

As mentioned earlier, start-ups tend to apply only planning when considering future dimensions of the analysis framework. Arguably, start-ups tend to use planning instead of BSC due to fact that BSC does need resources and time to function properly and start-ups tend to lack both. More importantly, start-ups are quite agile companies that are able to shift business focus quickly and do amend their strategy more often than large companies. Due to the fact that start-ups lack fixed long-term strategies, the use if BSC becomes not as useful. Similarly, start-ups focus is more on short-term than long-term, cash flow wise as well as business wise, which makes the usefulness of the BSC less attractive.

When comparing the actually used management accounting methods to popular accounting methods and the analytical framework dimensions they are associated with, there are overlaps as expected. This means that there is a reason behind the decision on using the other and not using the other. These reasons define the role of management accounting in start-up environment. Earlier in this chapter, the possible reasons for using and lack of using different kinds of management accounting methods were discussed. This discussion forms the basis of conclusion on the role of management accounting in the start-up company, which is concluded in the Discussions and Conclusions chapter.

4 DISCUSSIONS AND CONCLUSIONS

The uniqueness of the start-up companies characteristics and business practices are well known facts in the field of business. However, this uniqueness paves a way to a situation where creating an unified theory on the role of management accounting in the start-up setting is challenging. This thesis aims to discuss on the role of the management accounting by presenting different kinds of management accounting methods and reflecting them to an analysis framework to make them comparable. It is important to understand the role of management accounting in the start-up environment both from practical and from the theoretical point of view.

This thesis introduces the main research question and couple of assisting research questions. First of all, "What is the role of management accounting in a start-up company?". To help answer to the main research question, assisting research questions are introduced. To define the start-up setting, the characteristics of the start-up company need to be cleared. "What is a start-up company?" is the first assisting research question. To address the role of the management accounting, the management accounting methods are presented. Like mentioned in the Introduction, this study categorizes management accounting methods into two categories, the management accounting practices actually used by start-ups and popular management accounting methods. This division is conducted by answering to the second and third assisting research questions, "What kind of management accounting methods start-ups actually use?" and "What kind of management accounting methods are the most popular management accounting methods?"

It is arguable, that different kinds of management accounting practices are not comparable inherently. As the idea of the thesis is to discuss the role of management accounting, the presented management accounting practices needs to be comparable. To achieve comparability between management accounting methods, this research employs an analytical framework which is derived from the Lebas (1995) research. This framework consisting of five different kinds of dimensions of reason for performance measurement are reflected to all presented management accounting methods in order to see which management accounting practices are associated with each dimension.

This thesis research method is a simplified systematic literary review. The aim is to gather prior literature findings systematically and according to pre-set standards to avoid expletive selection bias and to provide the best foundation for the actual analysis. This simplified SLR is conducted on the pre-chosen database with the idea of applying only the most fundamental pieces of previous literature. In the end of every topic considered, one can find the SLR result. This is a table which represents the information on the author, the topic of the journal and the input to the research.

The main research question "What is the role of management accounting in a start-up company?" is answered in the earlier chapter. The answer itself is not as unambiguous as expected. In fact, the answer is multifaceted but coherent with expectations and common knowledge. Summarizing on the most important findings, the role of management accounting in a start-up company seems to include at least following aspects: to provide as useful and precise information as possible with limited resources, to not be heavily depended on past performance as analysis of past actions is considered less important that future planning, to give insight on firms internal performance with emphasis on internal operations analysis and not to be excessively fixed to company strategy or long term.

The findings of the study are satisfying both practically and theoretically. Even though there are no pre-set hypotheses, it's clear that findings are plausible and according to the common knowledge. Being able to draw clear conclusions on the role of management accounting in a start-up company from prior literature as clearly as the findings represent, can be considered successful. However, being a prior literary based research, it is distinct that the research lacks practicality. Practical research, for example a survey study, would be a reasonable next step for the research of the role of management accounting in a start-up setting. Testing the findings of this study in practice would be interesting and provide support to the validity of the results.

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